DOCUMENT RESUME

ED 279 650 SP 028 657

AUTHOR Nommay, Louanne
TITLE Education in Japan: What Does It Mean to the U.S.?
PUB DATE Jun 86
NOTE 31p.; Exit Project, Indiana University.
PUB TYPE Information Analyses (070) -- Reference Materials - Bibliographies (131)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Academic Achievement; Academic Aspiration; College Bound Students; *Comparative Analysis; Elementary Secondary Education; *Learning Motivation; *Social Attitudes; State Standards; Testing
IDENTIFIERS *Japan; *United States

ABSTRACT

This study surveys recent literature on education in Japan to determine what elements of the Japanese educational system could be incorporated into America's pedagogical system. There are four sections with the following titles: (1) What comparisons are being made between Japanese and American students in achievement and IQ tests scores? (2) How does the Japanese educational system differ from the American? (3) What are the attitudes of each nation toward its educational system? and (4) Should the United States model its educational system after Japan's? Annotations are presented of research journals, research periodicals, abstracts, and current literature. Suggestions are offered on what Japanese educational practices the United States should and should not adopt. A bibliography of the literature reviewed is included. (JD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED279650

EDUCATION IN JAPAN: WHAT DOES IT MEAN TO THE U.S.?

BY

LOUANNE NOMMAY

Graduate Student

A Study Directed

by

Charles R. DuVall, Ph.D.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

L. Nommay

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

SP 028 657

Submitted in partial fulfillment of the requirements
for the course E591--Exit Project
Indiana University at South Bend
June, 1986

BEST COPY AVAILABLE

TABLE OF CONTENTS

	Page
INTRODUCTION	1
Statement of the Problem	1
Purpose of the Study	2
Organization of the Study	2
Limitations of the Study	3
ANNOTATIONS	4
What Comparisons Are Being Made Between Achievement and IQ of Students in the United States and Japan	4
How Does the Japanese Educational System Differ from the American?	7
What Are the Attitudes of Each Nation Toward Its Educational System?	11
Should the United States Model Its Educational System After Japan's?	14
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	17
Summary	17
Conclusions	23
Recommendations	25
BIBLIOGRAPHY	26

INTRODUCTION

> Our Nation is at risk .... the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people. What was unimaginable a generation ago has begun to occur - others are matching and surpassing our educational attainments. (The National Commission on Excellence in Education 5)

The fact that American students are not doing as well as students in other industrialized nations has been highly publicized. Statistics from the International Assessment for the Evaluation of Educational Achievement showed that Japanese students were clearly at the top in the areas of math and science (Husen 456-57). The National Commission on Excellence in Education stated that the United States (U.S.) was not first or second in any international comparisons and last in many (The National Commission on Excellence in Education 8).

The Commission made recommendations concerning four important aspects of the educational process: content, expectations, time, and teaching (The National Commission on Excellence in Education 18). Though these areas were considered by the Commission to be areas needing improvement in American education, the opposite could be said for the Japanese educational system. The weaknesses of the U.S. are perceived by many to be the strengths of the Japanese.

STATEMENT OF THE PROBLEM

Many articles in current publications contain opinions of people who feel that Japanese achievement is linked to a superior

educational system. Suggestions have been made that the U.S. model its educational system after the Japanese. But to quote Cogan, "Though the grass on the other side of the fence always looks greener, it usually isn't" (468). Education in Japan is not without problems. There are both positive and negative aspects to consider. As Shimahara said, "Selective borrowing of the right elements of the Japanese system of education has the potential to enhance our own schools. Thoughtless replication is to be avoided at all costs" (421).

PURPOSE OF THE STUDY

It is the purpose of this study to look at education in Japan and to determine what elements of the Japanese educational system could be incorporated into America's pedagogical system.

ORGANIZATION OF THE STUDY

This paper will be organized into four sections: (1) What comparisons are being made between Japanese and American students in achievement and IQ tests scores? (2) How does the Japanese educational system differ from the American? (3) What are the attitudes of each nation toward its educational system? (4) Should the U.S. model its educational system after Japan's?

Through annotations of research journals, research periodicals, abstracts, and literature, this paper will attempt to answer these four questions. Suggestions for what Japanese educational practices the U.S. should and should not adopt will be developed.

LIMITATIONS OF THE STUDY

Research of this topic was limited to information written within the last four years. Though many opinions exist concerning why the Japanese educational system is the "one to copy" or the "one to avoid," there is a limited amount of current research that evaluates the positive and negative aspects of education in Japan.

ANNOTATIONS

WHAT COMPARISONS ARE BEING MADE BETWEEN ACHIEVEMENT AND IQ OF STUDENTS IN THE UNITED STATES AND JAPAN?

Husen, Torsten. "Are Standards in U.S. Schools Really Lagging Behind Those in Other Countries?" Phi Delta Kappan 64 (1983): 455-61.

Husen, Chairman of the International Assessment for the Evaluation of Educational Achievement, discussed the limitations in trying to compare achievement among different countries. The author stated that eighteen percent of the seventeen to eighteen year olds in the U.S. took mathematics in school; whereas only four to five percent took math in some European countries. In all the comparisons the author failed to mention Japan. When equal proportions of age groups were tested, the U.S. did score in a closer range to all of the other nations with the exceptions of Japan and Sweden. Though the author did present arguments and data that did in fact show that the U.S. is not really behind most other countries, he could not show the U.S. to be close in mathematical achievement to Japan. Included in the article was a graph showing math and science achievement in twelve nations.

Austin, Joe Dan. "International Study of Achievement in Mathematics - A Reanalysis." School Science and Mathematics 85 (8) December 1985: 635-44.

In this article the author reevaluated the results of the International Study of Achievement in Mathematics (ISAM). Austin stated that the low achievement of American students in this study was given as a major reason in the 1983 report "Educating Americans for the 21st Century" for believing that education in the U.S. must be improved. The author agreed with the chairman of the ISAM that the mathematics achievement of U.S. students is not as poor as the overall averages for the country indicates when equal percentages of secondary students are compared. However, Austin pointed out that the average for American students is still significantly lower than that of Japanese students. He concluded that the percent of seventeen to eighteen year olds in secondary schools does not explain all the differences between achievement of students of the U.S. and students from the other developed countries.

Travers, Kenneth J., Curtis C. McKnight, and John A. Dossey. "Mathematics Achievement in U.S. High Schools from an International Perspective." NASSP Bulletin November 1985: 55-63.

This article looked at data from the Second International Mathematics Study. Besides data on how student achievement in the U.S. compares to other countries, the article also gave information on how math is taught and staffed in the U.S. The figures indicated that the average number of time devoted to the study of high school math in the U.S. is lower than in many countries. The article also looked at the role of the textbook, how student time is spent in class, how the calculator is used, and the characteristics of high school math teachers. Though the article's title included the words "international perspective," the article did not compare the above areas to other countries.

Stevenson, Harold W. "Making the Grade: School Achievement in Japan, Taiwan, and the United States." (Based on a talk delivered to the Center for Advanced Study in the Behavioral Sciences, Stanford, California.) Microfiche. Sponsored by National Institute of Mental Health, Rockville, MD 1983. (ED 258 823)

This report was based on a study of American, Taiwanese, and Japanese first and fifth graders. The children were tested in reading and math, their parents were interviewed, and their classrooms were observed. Results showed that American students were behind the students in both Asian countries. According to tests conducted by Stevenson, these differences could not be explained by lower IQs among American students. Among the top one hundred first graders in math, only fifteen were Americans. In comparing twenty American fifth grade classrooms, not one classroom had an average score on the math test equivalent to that of the children in the worst performing Japanese classroom. American children were also overrepresented among the worst readers with fifty-six children scoring in the bottom group in reading comprehension. From the one hundred lowest and highest it was expected that each country would have thirty-three children in each group. The article contained several graphs showing the proportion of classroom time spent on various subjects, estimates from mothers on how children spend time outside school, and three graphs centering around mothers' attitudes.

Fiske, Edward B. "U.S. Pupils Lag from Grade 1, Study Finds." Microfilm. New York Times, 17 June 1984: I,1:cols. 2-4; I,30:cols. 1-6.

Fiske reported on the findings of Stevenson's study on Japanese, Taiwanese, and American achievement. As well as reviewing the results of the study, Fiske also included a table that summarized the math achievement test results of Japan, Taiwan, and the U.S. The author pointed out that Stevenson's study at the University of Michigan was the first major cross-cultural survey of school achievement to focus on the early grades.

Lynn, Richard. "IQ in Japan and the United States Shows a Growing Disparity." Nature 297 (1982): 222-3.

Lynn compared the results of the American Wechsler Intelligence Scale for Children (WISC-R) that was standardized in both nations in the 1970s. The test was given to children ages six to sixteen in both Japan and the U.S. 1,100 Japanese and 2,200 Americans were tested and each group was matched socio-economically. The mean IQ for Japan was approximately 111 as compared to a mean of 100 for the U.S. The author also included test scores from Japanese born in 1910 to 1969 that showed the mean IQ in Japan had risen from about 102 to the present 111. Lynn also stated that among the population as a whole, seventy-seven percent of the Japanese have a higher IQ than the average American.

Flynn, James R. "Now the Great Augmentation of the American IQ." Nature 301 (1983): 655.

Flynn countered Lynn's statement (Lynn 222-3) that Japanese IQ's are significantly higher than American's. The author argued that Lynn used performance on only five subtests of the WISC-R to compute his mean. Two verbal subtests, Digit Span and Arithmetic, were set aside. Using the performance on all seven subtests the Japanese mean fell by just over a point. The author also pointed out that the norms set by all Americans in 1977 included data from low-scoring racial minorities. If Japanese were compared only to white Americans then another two points could be deducted since white Americans scored 2.26 points above the norms set by all Americans. Also, Flynn stated that Americans have been gaining about one IQ point every three years. Since the Japanese were tested in 1975 and the Americans in 1972, another point should be deducted. Flynn's final estimate of Japanese IQ went from Lynn's 110.7 to 106.6.

Stevenson, Harold W., and Hiroshi Azuma. "IQ in Japan and the United States." Nature 306 (1983): 291-2.

Stevenson and Azuma also argued that the conclusions drawn in Lynn's study (Lynn 222-3) were incorrect due to flawed research procedures. The authors protested that the study was not based on groups that were socio-economically matched as Lynn had stated. Ninety-two percent of those tested in Japan were from cities with populations greater than 50,000. Yet only sixty-four percent of the population resides in cities of such size. The authors told of a study conducted in the 1970s that revealed rural children's IQ scores were about seven IQ points lower than the national norm. Whereas fifty-six percent of the personnel in all industries in Japan had completed secondary and/or higher education, only twenty-three percent in agriculture, forestry, and fishery had done so. The authors felt the sampling method used in Japan was biased toward higher socio-economic status and urban residence.

Lynn, Richard. (Reply to articles written in Nature magazine by authors Stevenson and Azuma, Nature 306; and Flynn, Nature 301.) Nature 306 (1983): 292.

In reply to two articles written that stated his data on Japanese IQ was not accurate, Lynn evaluated each of the authors' arguments. Lynn adjusted the mean IQ for all Japanese children from approximately 111 to 104.39. Lynn still argued that the score "... remains significantly higher than the mean of 100 for American Caucasians."

HOW DOES THE JAPANESE EDUCATIONAL SYSTEM DIFFER FROM THE AMERICAN?

Aoki, Koji, and Martha McCarthy. "The Right to Education in Japan." Journal of Law and Education 13 July 1984: 441-52.

The focus of this article was the highly centralized educational policies of Japan. It examined the role the national government plays in Japanese education. The authors mentioned that though the United States Constitution is silent on the topic of education, the Japanese Constitution provides for the right for all to have a free and equal education. The Ministry of Education and the areas it controls such as curriculum, school attendance, policies regulating staff employment practices, and discipline were discussed. The authors reviewed two Supreme Court cases dealing with individual freedoms associated with education.

Ferguson, Patrick. "Teacher Education in Japan: An Historical and Comparative Perspective." Journal of Teacher Education September/October (1985): 20-24.

In this article, the historical development of teacher education was described. Ferguson looked at some of the similarities and differences between Japanese and American teacher preparation practices of the past and present. It was pointed out that Japanese teachers receive considerably less formal preparation than American teachers. The following figures were given: fifty percent of the elementary teachers, twenty-eight percent of the junior high, and twelve percent of the high school teachers hold junior college degrees; and less than one percent of the teachers at all levels hold graduate degrees. Ferguson concluded by describing some of the ways Japan is using or modifying American educational concepts in their teaching methods.

Okuda, Shinjo. "Improvement of Curriculum Standards in Japan - Revision and Enforcement of the Course of Study." Microfiche. National Institute for Education Research, Tokyo. March 1983. (ED 236 065)

Okuda's paper focused on revisions that have been made in the Japanese educational system. Educational objectives for the levels elementary through higher education were given. Charts were included that showed the average number of hours spent on each subject. Also discussed by Okuda was the in-service training funded by their national government. Of special interest was the topic of the new teacher program. All newly employed teachers are required to attend a twenty day in-service training course. Ten days center around general training. Another ten days concentrates on instructing the teachers in classroom procedures.

White, Merry I. "Japanese Education: How Do They Do It?" The Public Interest 76 (1983): 87-101.

White closely examined the Japanese educational system and provided the reader with a good, though one sided, view of their system. The ages for compulsory education are six to fifteen. Ninety-five percent of the five-year olds and seventy percent of the four-year olds attend kindergarten or nursery school. Non-compulsory high school attendance is at ninety-eight percent. Japanese children attend school 240 days a year, compared to 180 in the U.S. Many children also attend juku 'after school classes,' or yobiko 'cram schools' for those taking an extra year between high school and college to prepare for exams. In high school, besides the basic courses of Japanese, English, math, science, and social studies, all students take courses in chemistry, biology, physics, earth sciences, and calculus. Teachers are hired for life and start at salaries equivalent to college graduates entering the business world. The author also reviewed a study of attitudes among Japanese and American mothers. The worst Japanese students were doing better than the best Americans. Yet the Japanese mothers were dissatisfied with their children's schools. Where American mothers tended to stress ability, Japanese mothers stressed effort.

Fiske, Edward B. "Japan's Schools: Intent About the Basics." Microfilm. New York Times 10 July 1983: I,3:cols. 3-5; I,28:cols. 1-6.

This article was the first of four by the education editor of the New York Times. Fiske spent four weeks visiting schools and colleges in Japan. Japanese students spend a third again as much time in school as Americans. The school year begins on April 1 and ends the following March. It is divided into three terms with a forty day summer vacation in July and August. Students attend school Monday through Friday with a half day on Saturday. The pace of learning is faster, with many ideas presented as much as a year earlier. Compared to American students, twice as many students in Japan spend more than two hours a day studying. A table was included that showed comparisons of the grades at which American and Japanese students are typically taught particular subjects. Math and science receive special emphasis. Though only advanced students in the U.S. take calculus, all Japanese students take a basic form in their junior year. Admission to all the universities is based on a single examination. Competition to get into the teaching profession is stiff, and only the academically able are allowed. Teachers are well paid and enjoy high social status.

Fiske, Edward B. "Japan's Schools Stress Group and Discourage Individuality." Microfilm. New York Times 11 July 1983: A1:cols. 4-5; A6:cols. 1-6.

In the second of four articles, Fiske took the reader inside both the primary and secondary Japanese classrooms. Instruction at the secondary level is almost entirely by lecture. Fiske quoted a high school English teacher, "The teacher conveys knowledge. The students accept knowledge. That's it." Fiske made the following observations while visiting several schools: students wore uniforms, the students stayed in one room and the teachers moved from place to place, there were few cafeterias so students ate in their rooms and were responsible for cleaning it, and regular periods were set aside for such tasks as washing the halls and weeding the grounds. Students were automatically promoted with their classes regardless of whether or not they had mastered the material. There are few choices for students to make about which classes they will take. Students can easily reach their senior year before having any options.

Fiske, Edward B. "Japan's Schools: Exam Ordeal Rules Each Student's Destiny." Microfilm. New York Times 12 July 1983: A1:Cols. 5-6; A8:Cols. 1-6.

In his third article of four, Fiske took a close look at Japan's examination system. The author pointed out that there are several factors that help to determine whether or not a student in the U.S. will be accepted to a college. But in Japan a one day exam is the deciding factor. Though students are grouped heterogeneously in elementary and junior high school, they must take an examination in ninth grade to determine what high school they will attend. The result is that students begin attending afternoon private schools called juku as early as the primary grades. The vice president of the Tokyo Gakuen juku was quoted, "Americans go to Boy Scouts, Japanese go to jukus." Parents in Japan must spend a great deal of money for a private education to supplement their child's public one. Fiske talked with one family whose son was not doing well in a juku which focused on practice examination tests every Sunday morning. The parents enrolled their son in another juku that specialized in preparing students for the other juku's practice tests.

Rohlen, Thomas P. Japan's High Schools. Berkeley, Los Angeles, and London: University of California Press, 1983.

Rohlen spent fourteen months in Kobe, Japan. He spent six to eight weeks at each of five carefully selected high schools. The author attended classes, talked with teachers, studied school records, and gave out questionnaires in what is considered the top high school in Japan (in terms of what percentage of its graduates are accepted at the prestigious Tokyo University), two academic high schools, one vocational high school, and one night vocational school. These schools represented the best to the most troubled schools in Kobe. Drawing on these experiences Rohlen's book took a close examination of the strengths and weaknesses of the Japanese educational system.

WHAT ARE THE ATTITUDES OF EACH NATION TOWARD ITS EDUCATIONAL SYSTEM?

Lohr, Steve. "Japan's Classroom: A Budding 'Blackboard Jungle?'" Microfilm. New York Times 29 March 1983: I,2: cols. 3-6.

This article reported on the violence that has been plaguing Japan's schools. The author told of several cases which came during the examination season and how school violence has increased sharply in recent years. Lohr interviewed some sixteen year old high school students who said they were not surprised by the violence. They spoke of a shared sense of frustration with the system. A student related how he got a stomach ache whenever he came to a question he could not solve. As Lohr stated, all students attend high school and most can get into some university. But in Japan "... one's educational pedigree marks an individual for life, determining his job and social status to a far greater degree than in the United States."

Haberman, Clyde. "Japan's Youth Seem Old Before Their Time." Microfilm. New York Times 11 March 1984: IV,22:cols. 1-3

Haberman's article centered around the problems associated with the pressures of Japan's examination system. The article was written just after the season the Japanese refer to as "examination hell." Comments from Japanese teachers were included that told of children in their classrooms who have lost the inability to play because their lives center around classes and private cram schools. Also mentioned was school violence and an experiment that uncovered disturbing antisocial fantasies among students in fifth and sixth grades.

Haberman, Clyde. "Japan Acts to Revise School System." Microfilm. New York Times 12 August 1984: I,3:cols. 1-3.

Haberman reported on the Japanese Parliament's approval of a new three year study to be conducted on how their country educates its children. The Japanese people have been criticizing their educational system. Parents have complained that the pressures of the examination system are too great, the curriculum is too rigid, and that the system discourages individuality and stifles creativity. It was reported that many people fear that the pressures the young people must experience are behind the recent wave of teen-age suicides and assaults on teachers. Haberman also told of a commission Prime Minister Yasuhiro Nakasone formed in 1982 to look at their educational system. The commission reported back that "Japanese education, in general, is being enveloped in an oppressive atmosphere and is losing its relaxed vitality" (quoted in Haberman). The new panel, created by Parliament, was given three years to conduct a study and come up with specific proposals aimed at improving education in Japan.

Dettmer, Jamie. "'Too Competitive' System Attached." Microfilm. Times Educational Supplement 2 August 1985: 11.

Dettmer updated the progress of the Advisory Council on Education that was appointed in 1984 by Prime Minister Nakasone. The author reported the council's following findings: (1) Secondary education in Japan has some merits, but its "... main thrust has been to have students memorize information and facts" and that, as a result, "the development of the ability to think and judge on one's own and the development of creativity has been hampered" (quoted in Dettmer). (2) Teachers are pressured to cram children with facts so they can compete for entry to the most prestigious universities. (3) Employers are partly to blame as they often put too much emphasis on university background. (4) School violence is due to the frustration and anxiety the children face due to intense competition. Dettmer quoted the council's chairman, "The violence and juvenile delinquency is the immediate reason why we must have reforms."

National Commission on Excellence in Education. A Nation At Risk: The Imperative for Educational Reform. Washington, D.C.: U.S. Department of Education, April, 1983.

The National Commission on Excellence in Education was created in 1981 by the Secretary of Education, T. H. Bell, to examine the quality of education in the United States. The Commission stated in its report that the educational attainments of the U.S. are being matched and surpassed by other nations. The report gave data it called "indicators of the risk" that showed a decline in educational standards and achievement in the U.S. As a result of the eighteen month study, the Commission recommended reform in four areas: (1) content (state and local high school graduation requirements strengthened), (2) expectations (more rigorous and measurable standards, and higher expectations for academic performance and student conduct adopted), (3) time (more time devoted to the New Basics), and (4) teaching (improved preparation of teachers and the teaching profession made more rewarding and respected).

Gallup, Alec M. "The 17th Annual Gallup Poll of the Public Schools." Phi Delta Kappan September 1985: 35-47.

Fifty-two percent of the public school parents interviewed gave the public schools a grade of A or B. Thirty-three percent gave a grade of C. Fifty-eight percent gave teachers a grade of A or B. In regards to pay, thirty-eight percent of the parents who had children in school thought teachers were underpaid. Sixty-two percent favored merit pay and eighty-nine percent were in favor of competency testing for teachers. Forty-five percent felt there is not enough homework given in elementary school; forty-nine percent felt this about high school. A lack of discipline was seen by twenty-five percent of the parents to be the biggest problem that faced the public schools.

Gallup, Alec M. "The Gallup Poll of Teacher's Attitudes Towards the Public Schools." Phi Delta Kappan October 1984: 97-107, January 1985: 323-330.

American teachers gave high marks to the U.S. public schools. Seventy-two percent gave a grade of A or B to the school in which they taught. The same positive attitude was also present when the teachers were asked to grade their fellow peers. Seventy-eight percent awarded their fellow teachers a grade of A or B. However, teachers gave low marks to parents. Only one in five gave an A or B when asked to grade the job that local parents were doing in bringing up their children. In the area of teacher salaries, ninety percent of the teachers felt their pay was too low. Sixty-four percent opposed merit pay and sixty-three percent were in favor of competency testing for teachers. Parental lack of interest and support was viewed by thirty-one percent of the teachers as being the biggest problem faced by the public schools.

Feistritzer, Emily. The Condition of Teaching. Princeton, New Jersey: The Carnegie Foundation for the Advancement of Teaching, 1983.

Feistritzer's book contained statistics about schools and teachers across the U.S. A state by state analysis was given that showed conditions of teaching vary greatly from one state to another. Changes that spanned a decade from 1971 through 1981 were analyzed. In comparing Scholastic Aptitude Test (SAT) scores of those planning to major in education in college with those entering the fields of the arts, biological sciences, business, commerce and communications, physical sciences, and social sciences, it was found that the education students averaged much lower. In 1982 education majors averaged thirty-two points lower on the verbal portion, and forty-eight points lower on the mathematics portion of the SAT. Several reasons were given to explain why the teaching profession is not able to attract the high calibre people needed to improve our nation's schools. The study cited the following reasons why the teaching profession is in the midst of a crisis: low salaries (as compared to other college graduates), loss of status, bureaucratic pressure, a perceived negative public image, and the lack of recognition and rewards. In a 1981 survey over half of the teachers polled said they would probably or certainly not become a teacher again if they were starting all over.

SHOULD THE UNITED STATES MODEL ITS EDUCATIONAL SYSTEM AFTER JAPAN'S

Bell, Terrel. "Japanese Schools: There Is Much We Can Learn." U.S. News & World Report 2 September 1985: 43.

Bell, former U.S. Secretary of Education, described his summer visit to classrooms in Japan. He discussed the positive points of their educational system. The school day is longer than that of the American schools. Students attend school Monday through Friday for seven hours (according to Bell, five and a half or six hours is common for the U.S.) and also attend a half day on Saturday. There is an emphasis on order and discipline. Students at all levels wear uniforms. Everyone must study a second language; with almost every student it is English. There is a single, national curriculum. However, Bell admitted that because of the intense pressure of the examination system, he would not want his 14-year old son in "that pressure-cooker environment." Bell said that he would like to see curriculum changes in the U.S. to reflect a greater emphasis on languages. He also recommended to the state legislatures that the U.S. follow the lead of the Japanese and boost teacher salaries. Because the salary structure of the Japanese is set by law to be in the upper one fourth of the income level of the Japanese people, higher caliber people are attracted to the profession.

Shimahara, Nobuo K. "Japanese Education and Its Implications for U.S. Education." Phi Delta Kappan February 1985: 418-21.

Shimahara discussed the differences between the Japanese and American educational systems. Listed were sociological and educational factors that have contributed to the success of Japanese primary and secondary education. Shimahara pointed out that great differences between the U.S. and Japan socially and culturally make it difficult to model American education after Japanese. For example, Shimahara pointed out that less than three percent of the Japanese people are considered a minority. Sociologically, the Japanese are not as affected by such things as divorce and unemployment because the rates for these areas are lower in Japan. However, certain strengths were listed as "implications for U.S. education." Japanese emphasize developing work habits that are conducive to learning. School is much more intense (12 years of school in Japan is equivalent to nearly 16 years of schooling in the U.S.) and is central in the lives of Japanese students. Students in Japan are very aware that their future depends on their academic work and see homework as contributing to their academic success. Japan has a deep national commitment to education.

Hurn, Christopher J. "The Problem with Comparisons." Educational Leadership October 1983: 7-12.

Hurn looked at the problem of comparing American education with that of other countries. Recent data that showed how poorly American students were doing in math and science as compared to other industrialized nations was given. However, Hurn felt these comparisons were unfair because they compared educational systems that were profoundly different in objectives, values, and organization. The author discussed, in depth, how American values such as equality, practicality, and utility affect the educational system and how different these values are from other nations. Hurn looked at the organization of American education as it is controlled locally as opposed to the national control of other countries.

Cogan, John J. "Should the U.S. Mimic Japanese Education? Let's Look Before We Leap." Phi Delta Kappan March 1984: 463-68.

Cogan spent the 1982-83 academic year as a Fulbright Research Scholar in international education at Hiroshima University, Hiroshima, Japan. In this article, Cogan outlined what he believed to be the strengths and weaknesses of the Japanese educational system. Though he feels there are certain elements that the U.S. should incorporate into their own system, he also feels there are certain points that will only work in the Japanese system. Cogan, who specializes in comparative education, concluded by saying, "What works well for one nation, doesn't always work well for another."

Fiske, Edward B. "Japan's Schools: Not Very Much U.S. Can Borrow." Microfilm. New York Times 13 July 1983: I,10:cols. 3-6.

In the last of four articles, Fiske looked at reasons why he felt the U.S. should not try to model its own educational system after Japan's. The divorce rate in the U.S. is 90 for every 1000 intact marriages, in contrast to Japan where the rate is 3 per 1000. And nearly one out of five American children is raised by a single parent; in Japan only five percent live in single parent homes. Japan has an unusually homogeneous population. The author stated, "The poorest twenty percent of Japanese have a greater share of the national wealth than that portion of any other industrialized nation." Though education and the methods for teaching must be different in the U.S. where people come from such different backgrounds, there are strengths of the Japanese system the author felt could be incorporated into the American system. Japanese spend more of their national income on education and make it a larger portion of their national budget, and reward their teachers with higher salaries and social status.

SUMMARY

Research has shown that students in the U.S. are scoring lower than Japanese students in both science and math. Though a reevaluation of test scores does place the U.S. closer to most industrialized nations as Husen and Austen noted, the fact remains that the students in America are scoring lower than the Japanese (Husen 458; Austin 644).

In 1983, the National Commission on Excellence in Education made recommendations in its report, A Nation at Risk: The Imperative for Educational Reform, which put a great deal of emphasis on revisions at the high school level (24-27). But as Stevenson's study indicates, the differences in achievement are not limited to those in high school, but are seen as early as first grade (2). American students are behind those of other countries just months after they enter first grade (Stevenson 2).

Lynn has tried to attribute the differences in achievement between Japanese and American students to a high IQ among the Japanese people (222). But Stevenson, Azuma, and Flynn all argued that his conclusions were incorrectly drawn (Stevenson and Azuma 291; Flynn 655). Lynn's adjusted Japanese IQ score showed an edge of slightly over four points higher than that of the U.S. average (292). Stevenson's study, conducted after Lynn's standardized testing, found no significant differences in cognitive ability (5). Yet the fact remains that Japanese students outperform Americans.

In trying to explain some of these differences in achievement it is important to look closely at how the Japanese educate their children. The amount of time Japanese students spend in school is one of the first great disparities with the American system. As White pointed out, children in Japan are in school 240 days a year compared to the U.S. figure of 180 (89). Not only do they spend more days in school, but as Bell stated, they spend more hours each day in school (43). Saturday morning in Japan means children get up and go to school just as they do Monday through Friday (Fiske 10 July 1983). A half day on Saturday, along with seven hours each weekday, means Japanese students are spending considerably more time in class than their American peers. Fiske also pointed out that according to Japanese authorities more than half of all students in Japan spend more than two hours a day studying (10 July 1983). In the U.S. only one fourth of the students spend this much time on their studies (Fiske 10 July 1983).

Another difference lies in the fact that many Japanese children also attend juku. Sixty percent of the urban student population in grades seven through nine in 1976 were enrolled in a private cram school (Rohlen 104). In that same year forty percent of the fourth, fifth, and sixth graders were going to a juku (Rohlen 104). These after school and Saturday hours are in addition to the already longer school day and week.

A third consideration of the differences lies in the examination system. As Fiske put it, "American students, by and large, take examinations to get out of school. Japanese take them

to get in" (12 July 1983). In the U.S. many things may help to determine if one is accepted to a university. The SAT, high school grades, athletic ability, and extra-curricular activities, can all be factors that determine whether a student is admitted to college (Fiske 12 July 1983). But in Japan a student's acceptance to college depends on a one day battery of tests (Fiske 12 July 1983).

Japanese students must also take a test to determine which high school they will attend. In Japan's selective high school system, students are placed in a high school based on their ability. Junior high school grades and teacher recommendations play a big part in determining which high school a student will attend (Fiske 12 July 1983). But the important element in this decision is the high school entrance examination (Fiske 12 July 1983). Those who score well go to a public academic high school (Rohlen 11). The academic school a student attends again depends on how well a student does on ninth grade exams (Fiske 12 July 1983). Those not accepted to one of the academic schools must go to a vocational school (Rohlen 38). Some choose to go to a private academic school, though the reputation of such schools is a less respected one (Rohlen 38). Students not able to gain acceptance into any of the aforementioned schools must attend a night vocational school (Rohlen 31).

In Japan there are no real choices to be made about what a student will study in high school (Fiske 11 July 1983). The national government determines the curriculum and which books schools may adopt (White 91). Whereas many American students have

the opportunity to choose from a long list of electives to fulfill graduation requirements, Japanese students are given few options (Fiske 11 July 1983). Fiske pointed out that students in Japan can easily reach their senior year without having made any choices (11 July 1983).

Though Feistritzer presented statistics that showed less academically able students go into teaching in the U.S. (88), this is not so in Japan. Fiske stated that the competition to get into teaching is stiff and only those with good academic records are allowed in the program (10 July 1983). White told of the high pay teachers receive (91-92). Bell stated that the salary structure is set by the government to be in the upper one fourth of the income level of the Japanese people (43).

But Japan is not without its problems. Haberman's interview with teachers in Japan showed that there is growing concern that children in Japan are under too much pressure (11 March 1984). Children's lives center around school and not around playing (Haberman 11 March 1984). Violence in school, particularly around the examination season, was reported by Lohr as another frustration facing Japanese schools (29 March 2983). Haberman also reported that a study was approved by Parliament to examine some of these problems (12 August 1984). Dettmer's update on this study showed that the Japanese people do indeed feel there is a problem with their educational system (2 August 1985).

Though the Japanese children are so successful, it's the American mothers who are the most satisfied with their children's school (White 99). White pointed out that the worst performing

Japanese students in a study were doing better than the best American students (99). The Japanese mothers were critical of their children's schools, and the American mothers consistently answered that the schools and their children were doing fine (White 99).

The National Commission on Excellence in Education is not in agreement with the American mothers of the survey. The data referred to as "indicators of the risk" does not point to a country whose schools are doing fine (8-9). In international comparisons on nineteen academic tests, Americans were never first or second and they were last seven times. (The National Commission on Excellence in Education 8)

Yet the American public is not so quick to condemn its public schools. The Gallup Poll showed that over half the public school parents gave the schools a grade of A or B (Gallup 36). Seventy-two percent of those who teach in a public school gave a grade of A or B to their school (Gallup 324).

Though teachers gave high marks to their schools and peers (Gallup 324), Feistritzer pointed out that the teaching profession in the U.S. is not without problems (29). Due to factors such as low pay and social status, lack of recognition and reward, and a perceived negative public image, teaching is not attracting the "best" of the college population (88). In Feistritzer's 1981 survey, fifty-five percent of the teachers reported they either certainly or probably would not become a teacher again (29).

Research done by Stevenson showed that Japanese children do better in reading and math than American children (4). The

National Commission on Excellence in Education stated that there has been a steady decline in science achievement scores as measured by national assessments of science (The National Commission on Excellence in Education 9). Fiske told of high pay and social status for teachers, and of rigorous competition to get teaching positions (10 July 1983). Does this mean the U.S. should model its educational system after that of the Japanese?

Shimahara discussed the many sociological and educational factors that have contributed to the success of the Japanese system (419). Standardized curricula are possible in a nation where less than three percent is considered a minority (Shimahara 419). Shimahara (419) and Fiske (13 July 1983) said that the Japanese are less effected by such sociological factors as divorce and unemployment because both of these rates are much lower than that of the U.S. And as Hurn pointed out there are problems with trying to compare two nations whose objectives, values, and organizations are so different (Hurn 7). Cogan stated that "... educational systems tend to work best when they are well-adapted to the societies they serve" (463).

However, Bell, Cogan, Fiske, and Hurn all felt there were strengths in the Japanese educational system that could work well in the U.S. Fiske and Bell both felt that teachers should be paid higher salaries and given more respect as are teachers in Japan (Fiske 13 July 1983; Bell 43). Bell said he would like to see curriculum changes that would reflect the Japanese emphasis on languages. Shimahara saw Japanese schooling as being much more intense (419). The 12 years of schooling in Japan is equivalent

to nearly 16 years in the U.S. (Shimahara 421). Shimahara felt that another strength was that Japanese emphasize developing work habits that are conducive to learning (420).

There are elements of the Japanese educational system that do not belong in the U.S. Hurn pointed out that Americans value different things in education (7). Though one of the basic goals of the examination system in Japan was to provide bright but poor students with the same educational opportunities as the privileged, the opposite has become true (Fiske 12 July 1983). Instead, it is those children with parents who can afford the private tutors and cram schools who have the advantage in competing for admission to the best colleges and universities (Fiske 12 July 1984). Besides placing a financial burden on parents, the examination system also creates pressure that many feel are causing the increase in violence and suicide among teenagers. Another criticism is that the focus on national exams has meant that students must memorize an enormous amount of information and facts (Dettmer 11). Parents in Japan fear that the pressures of the exams and a curriculum that is too rigid are discouraging creativity and individuality.

CONCLUSIONS

Though further research is necessary, this study indicates that the four recommendations made in A Nation At Risk are, in fact, four of the greatest strengths of the Japanese educational system. The National Commission on Excellence in Education has recommended the following in this report: (1) increase the

content hours, (2) adopt more rigorous standards, (3) lengthen the time spent in school, and (4) improve the teaching profession (The National Commission on Excellence in Education 24-31). Research indicates that Japanese students are excelling in an educational atmosphere similar to the Commission's recommendations. They are currently spending more time on the content areas as well as attending school for longer periods of time. Japanese students are expected to achieve at high levels. Their futures depend on it. Also, the teaching profession maintains a much higher status, and teachers are very well paid.

Even though Japanese students achieve high academic standards within this atmosphere, there are aspects of their educational system which may not be adaptable or desirable to American education. Due to the examination system in Japan, free choice is practically non-existent. Research indicates that the system places tremendous pressure on children at an early age. Studies indicate that the result of such pressure is increased violence and suicide among teen-agers.

Consideration of the Japanese educational system and the recommendations of the National Commission on Excellence in Education indicates that the U.S. could strengthen its educational system by adapting some Japanese aspects. The goal is not to copy the Japanese system of education, but rather to weave some of the strengths into U.S. education. Consider the following words of Shimahara, "Above all, it is vital to keep in mind that Japanese education serves as a mirror to reflect education in the United

States--not as a prototype to be duplicated in every respect" (Shimahara 421).

RECOMMENDATIONS

It is recommended that:

1. Schools increase the requirements at the high school level.
2. Teachers and parents have higher expectations for their children and that they insist their children put forth their greatest effort in school.
3. The school year be lengthened beyond the 180 days presently required.
4. Teachers' salaries be raised to the standards of those college graduates entering the business field, and that steps be taken to improve the social status of teachers in America.

BIBLIOGRAPHY

Aoki, Koji, and Martha McCarthy. "The Right to Education in Japan." Journal of Law and Education 13 July 1984: 441-52. (7)

Austin, Joe Dan. "International Study of Achievement in Mathematics - A Reanalysis." School Science and Mathematics 85(8) December 1985: 635-44. (4, 17)

Bell, Terrel. "Japanese Schools: There Is Much We Can Learn." U.S. News & World Report 2 September 1985: 43. (14, 20, 22)

Cogan, John J. "Should the U.S. Mimic Japanese Education? Let's Look Before We Leap." Phi Delta Kappan March 1984: 463-68. (15, 22)

Dettmer, Jamie. "'Too Competitive' System Attacked." Microfilm. Times Educational Supplement 2 August 1985: 11. (12, 20, 23)

Feistritzer, Emily. The Condition of Teaching. Princeton, New Jersey: The Carnegie Foundation for the Advancement of Teaching, 1983. (13, 20, 21)

Ferguson, Patrick. "Teacher Education in Japan: An Historical and Comparative Perspective." Journal of Teacher Education September/October (1985): 20-24. (8)

Fiske, Edward B. "Japan's Schools: Intent About the Basics." Microfilm. New York Times 10 July 1983: I,3:cols. 3-5; I,28:cols. 1-6. (9, 20, 22)

"Japan's Schools Stress Group and Discourage Individuality." Microfilm. New York Times 11 July 1983: A1:cols. 4-5; A6:cols. 1-6. (10, 18, 19)

"Japan's Schools: Exam Ordeal Rules Each Student's Destiny." Microfilm. New York Times 12 July 1983: A1:cols. 5-6; A8:cols. 1-6. (10, 19, 23)

"Japan's Schools: Not Very Much U.S. Can Borrow." Microfilm. New York Times 13 July 1983: I,10:cols. 3-6. (16, 22)

"U.S. Pupils Lag from Grade 1, Study Finds." Microfilm. New York Times 17 June 1984: I,1:cols. 2-4; I,30:cols. 1-6. (6)

Flynn, James R. "Now the Great Augmentation of the American IQ." Nature 301 (1983): 655. (6, 17)

Gallup, Alec M. "The Gallup Poll of Teacher's Attitudes Towards the Public Schools." Phi Delta Kappan October 1984: 97-107; January 1985: 323-330. (13, 21)

"The 17th Annual Gallup Poll of the Public Schools." Phi Delta Kappan September 1985: 35-47. (13, 21)

Haberman, Clyde. "Japan's Youth Seem Old Before Their Time." Microfilm. New York Times 11 March 1984: IV,22:cols. 1-3. (11, 20)

"Japan Acts to Revise School System." Microfilm. New York Times 12 August 1984: I,3:cols. 1-3. (12, 20)

Hurn, Christopher J. "The Problem with Comparisons." Educational Leadership October 1983: 7-12. (15, 22, 23)

Husen, Torsten. "Are Standards in U.S. Schools Rally Lagging Behind Those in Other Countries?" Phi Delta Kappan 64 (1983): 455-61. (4, 17)

Lohr, Steve. "Japan's Classroom: A Budding 'Blackboard Jungle?'" Microfilm. New York Times 29 March 1983: I,2:cols. 3-6. (11, 20)

Lynn, Richard. "IQ in Japan and the United States Shows a Growing Disparity." Nature 297 (1982): 222-3. (6, 17)

(Reply to articles written in Nature magazine by authors Stevenson and Azuma, Nature 306; and Flynn, Nature 301.) Nature 306 (1983): 292. (7, 17)

National Commission on Excellence in Education. A Nation At Risk: The Imperative for Educational Reform. Washington, D.C.: U.S. Department of Education, April, 1983. (13, 17, 21, 22, 23)

Okuda, Shinjo. "Improvement of Curriculum Standards in Japan - Revision and Enforcement of the Course of Study." Microfiche. National Institute for Educational Research, Tokyo. March 1983. (ED 236 065) (8)

Rohlen, Thomas P. Japan's High Schools. Berkeley, Los Angeles, and London: University of California Press, 1983. (11, 19)

Shimahara, Nobuo K. "Japanese Education and Its Implications for U.S. Education." Phi Delta Kappan February 1985: 418-21. (15, 22, 23, 244

Stevenson, Harold W. "Making the Grade: School Achievement in Japan, Taiwan, and the United States." (Based on a talk delivered to the Center for Advanced Study in the Behavioral Sciences, Stanford, California.) Microfiche. Sponsored by National Institute of Mental Health, Rockville, MD 1983. (ED 256 823) (5, 17)

Stevenson, Harold W., and Hiroshi Azuma. "IQ in Japan and the United States." Nature 306 (1983): 291-2. (7, 17)

Travers, Kenneth J., Curtis C. McKnight, and John A. Dossey. "Mathematics Achievement in U.S. High Schools from an International Perspective." NASSP Bulletin November 1985: 55-63. (5)

White, Merry I. "Japanese Education: How Do They Do It?" The Public Interest 76 (1983): 87-101. (9, 19, 20, 21)